



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,445	09/04/2003	Shen-Ling Allen Wang	G00344/US	6442

7590 04/07/2004

Mick Nylander
GKN Automotive, Inc.
3300 University Drive
Auburn Hills, MI 48326

EXAMINER

PATEL, VISHAL A

ART UNIT	PAPER NUMBER
----------	--------------

3676

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/655,445

Applicant(s)

WANG, SHEN-LING ALLEN

Examiner

Vishal Patel

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by St.

Laurent, Jr. (US. 4,253,675).

Laurent discloses a boot for use with a joint. The boot comprising a body, a first end of the body having a generally tubular shape, a second end of the body having an annular sealing lip (A' or A'') and at least one of the sealing boot ends is reinforced with a rigid support material (7).

Regarding claim 2: The at least one end is internally reinforced (7 internally reinforced the boot ends).

Regarding claim 3: The at least one end is reinforced with a high stiffness and high strength material (fabric 7).

Regarding claim 4: The high stiffness and high strength material is a fabric (7 is a fabric).

Regarding claim 7: The rigid support material extends from approximately the first end and the second (figure 1).

Regarding claim 8: The rigid support material stabilizes the boot at high speeds (this would be the case since the rigid support is acting as a reinforcing member).

Art Unit: 3676

Regarding claims 9-10 and 12: The boot has high stability and superior sealing capability during high temperatures and high angles. The boot comprises at least one flexible material (flexible material of boot).

3. Claims 1, 5-6, 9 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Martin et al (US. 6,234,488).

Martin discloses a boot having high stability and superior sealing capability during high speed operation, high temperatures, and high operating angles in a joint (boot 30 of joint having shaft 12). The boot having a body, a first end of the body having a generally tubular shape and a second end of the body having a lip (where 34 is considered to be a lip). The boot comprises a flexible material and at least one end is internally reinforced with a high stiffness and high strength material for providing the high stability and superior sealing (two flexible materials 112 and layers 110 there between). The flexible material is a thermoplastic (column 4, lines 2-14). The high stiffness and high strength material is arranged between layers of the flexible material (figure 10).

4. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Fox et al (US. 4,382,634).

Fox discloses a joint assembly (joint assembly showed in figures 1-2) for use on a vehicle. The joint assembly having a shaft (shaft 10 being sealed by 16), a first joint part connected to the shaft (first part 12 connected to 10) and a second joint part (14) cooperable with the first joint part to transmit torque therebetween.

The joint assembly having a rubber boot (rubber boot 16) having a first end, a second end associated with the second joint part (end 38 associated with 14). A boot cover (60 covers a

Art Unit: 3676

portion of boot) having a first end and a second end. The first end of the boot cover affixable to the second joint part (60 is affixable to second joint part) and the second end of the boot cover affixable to the second end of the boot (60 is affixable on the second end of the boot). The at least one end of the boot ends is internally reinforced with a high stiffness and high strength fabric (column 4, lines 45 -46) so as to provided high stability and superior sealing capability during high speed operation, high temperatures, and high operation angles.

The high stiffness and high strength material is a fabric (column 4, lines 45-46) and is arranged between layers of flexible material (this is the case since the fabric is embedded by neoprene rubber). The high stiffness and high strength material extends from approximately the first end to the second end (this is the case since the entire boot is made of fabric reinforced neoprene rubber). The second end having an annular sealing area (area at the second end). The first end having a generally tubular shape (the first end has a tubular shape).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoshida, Torii, Hamilton et al, Alcantara et al and Sugiura et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight, can be reached on (703) 309-3179.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

Any response to this action should be mailed to:

Application/Control Number: 10/655,445

Page 5


Art Unit: 3676

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive,
Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP
April 2, 2004


ALISON PICKARD
Primary Patent Examiner
Tech. Center 3600